



# Middlefield-Ellis-Whisman MEW Study Area

United States Environmental Protection Agency

Region 9

San Francisco

## Cleanup Activities Underway Within MEW Study Area

The U.S. Environmental Protection Agency (EPA) is overseeing cleanup activities in the MEW Study Area (Figure 1).

### Site Background

On June 9, 1989, EPA's Regional Administrator signed a Record of Decision (ROD) outlining the cleanup plan for soil and groundwater contamination in the MEW Study Area. EPA signed a Consent Decree (CD) with some potentially responsible parties and issued a Unilateral Administrative Order to other parties that did not sign the CD. The Order required the parties to begin cleanup activities when the Order became effective December 29, 1990.

Remedies were developed for groundwater and soil. The groundwater cleanup method involves pumping groundwater from wells installed for cleanup purposes and removing contaminants using air strippers or liquid-phase activated

carbon. The EPA-approved soil cleanup involves extracting contaminant vapors from the ground and treating them with granular activated carbon (i.e., soil vapor extraction) and/or excavation of contaminated soil and treatment by aeration.

In accordance with a Consent Decree entered on April 10, 1992, EPA, Raytheon Company and Intel Corporation agreed that the design and construction of the regional groundwater treatment system will be divided into two parts. Part One addresses groundwater contamination south of U.S. Highway 101, and Part Two addresses groundwater contamination north of U.S. Highway 101.

Past investigations revealed the presence of volatile organic compounds (VOCs) in the soil and groundwater. Eleven primary chemicals of concern are:

- trichloroethene (TCE)
- 1,1,1-trichloroethane (TCA)

- tetrachloroethene (PCE)
- 1,1-dichloroethene (1,1-DCE)
- total 1,2-dichloroethene (1,2-DCE)
- 1,1-dichloroethane (1,1-DCA)
- chloroform
- vinyl chloride
- Freon 113
- 1,2-dichlorobenzene (1,2-DCB)
- phenol.

TCE, the predominant chemical, has been found in the uppermost, shallow aquifer at concentrations of up to 1,000 parts per million (ppm) within current slurry walls. These slurry walls inhibit groundwater flow.

Recent studies have shown that the contaminated groundwater at MEW, commonly referred to as a "plume," has migrated north onto Moffett Field (Figure 1). The plume appears to have mixed, in part, with contamination from Moffett Field. EPA and the U.S. Navy have entered into a separate agreement for the investigation and cleanup of Moffett Field.

*This fact sheet explains work being performed under the Consent Decree signed by EPA, Raytheon, and Intel and the work being performed under the Unilateral Administrative Order issued to the nine potentially responsible parties (PRPs).*

## Status of Cleanup Activities

The status of the design and construction for the area-wide groundwater treatment system and the individual facilities are summarized (by company and facility address) on the following pages.

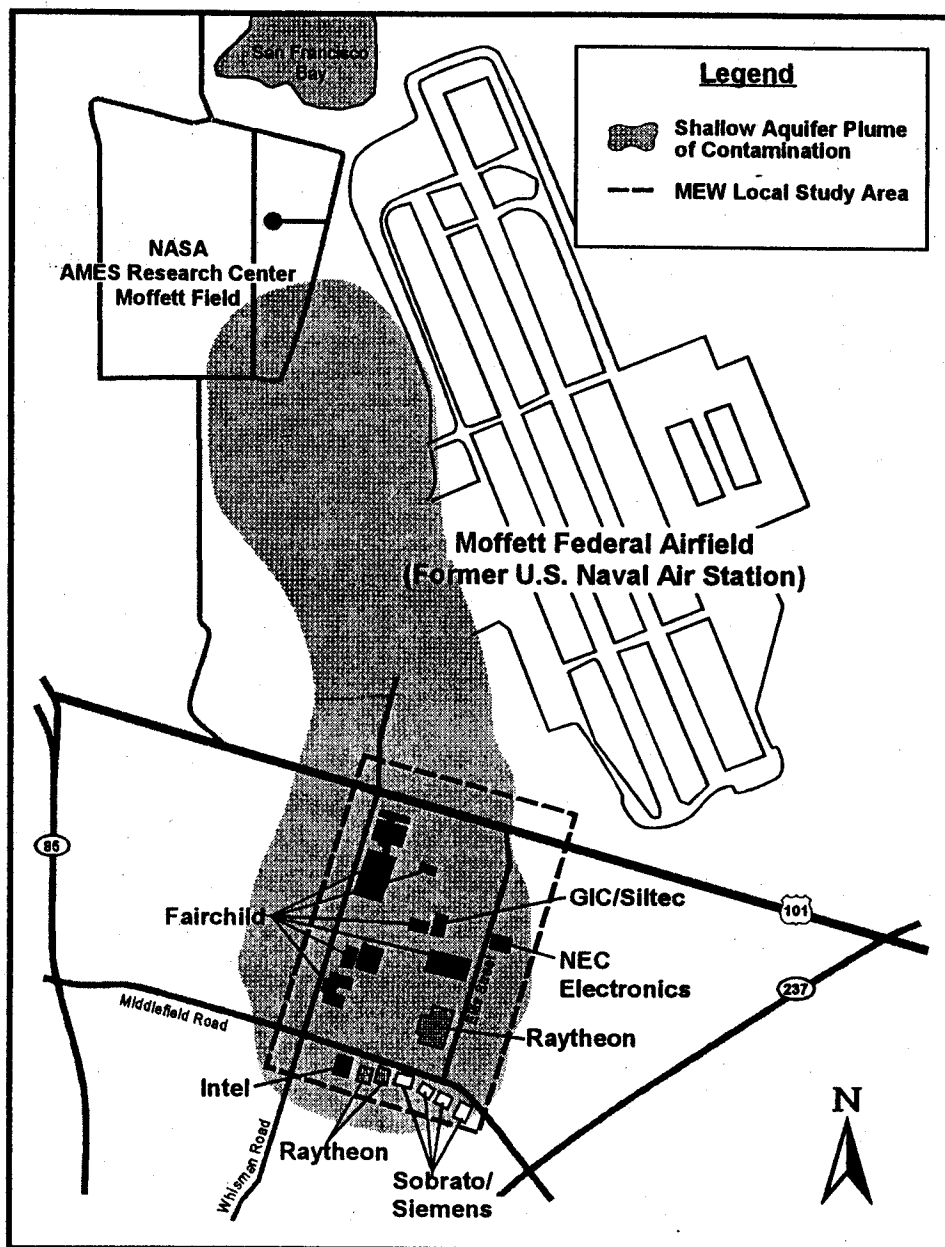
The wells shown in Figure 2 are grouped into source control recovery wells and regional recovery wells. The source control wells will be installed and operated by the individual company responsible for the source of contamination impacting the groundwater. Regional wells, which are designed to remediate the contaminated groundwater in the aquifers away from known source areas, will be installed by Intel and Raytheon. Long-term operations and maintenance will be the responsibility of companies within MEW.

## Regional Program

Documents outlining the details of the design and construction of the area-wide groundwater treatment system for north and south of Highway 101 are being completed. EPA expects these designs to be approved by July 1996, which will be followed by construction of the treatment systems. Regional groundwater cleanup should begin by July 1997.

## Facility-Specific Work

Soil and groundwater cleanup will occur at each facility. Groundwater extraction from facility-specific source control wells will begin as soon as each facility completes the construction of their groundwater treatment system. Since 1986, groundwater cleanup has been ongoing within the slurry walls at specific Raytheon and Fairchild properties (Figure 2).



**Figure 1: MEW Regional Study Area**

**Fairchild****Buildings 1-4:**

Buildings 1 and 2 have been demolished. Soil vapor extraction and soil excavation begin in May 1996. Construction of the groundwater treatment system has been completed.

**Building 18:**

Soil cleanup and construction of groundwater treatment system has been completed.

**Building 9:**

Soil and groundwater treatment systems within slurry walls are operating.

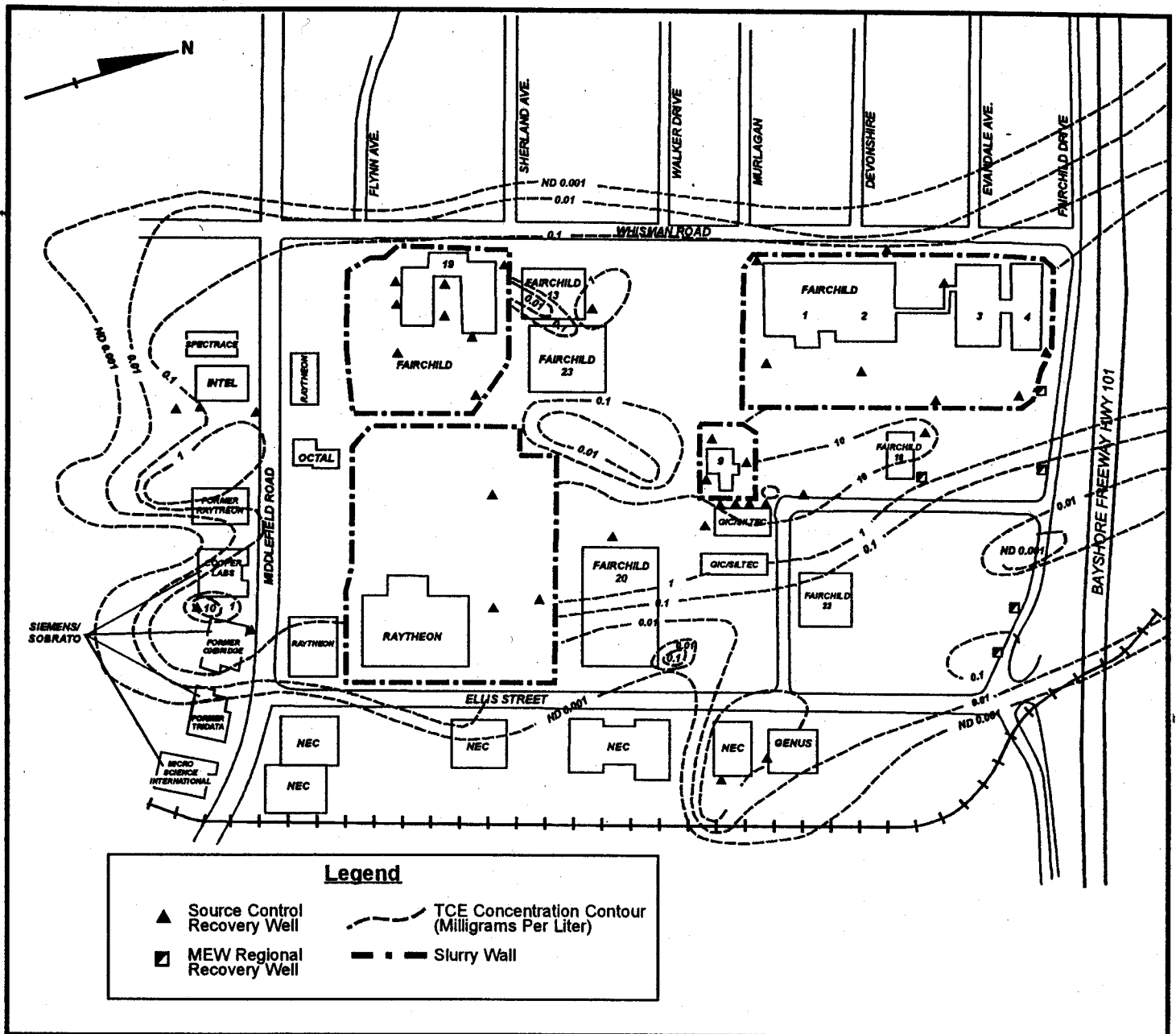
Some soil outside the slurry wall has been excavated and remediated; additional soil cleanup will begin in September 1996.

**Building 20:**

Soil cleanup is underway. Groundwater treatment systems have been constructed.

**Buildings 13, 19, and 23:**

Some soil has been excavated and remediated; remaining soil cleanup will begin in May 1996. Construction of the groundwater treatment system has been completed.



**Figure 2: Source Control and Regional Recovery Well Locations**

### GIC and Siltec

Construction of the soil vapor extraction and groundwater treatment systems is underway. Soil vapor extraction is planned to begin by September 1996.

### Intel

Soil cleanup is complete. Groundwater cleanup began in 1986 and continues.

### NEC

Soil cleanup is complete. Final design of the groundwater treatment system is due to EPA in June 1996; startup is planned for July 1997.

### Raytheon

**350 Ellis:** Soil vapor extraction is underway. Construction of the groundwater treatment system is complete.

**Lots 4 & 5:** The groundwater treatment system has been in operation since 1986. Deep soil contamination is being remediated by the groundwater treatment system due to the rise in groundwater levels.

### Siemens/Sobrato

Soil vapor extraction is ongoing. Techniques to enhance soil vapor extraction were recently tested on site. Test results and the final document outlining the cleanup design have been submitted to EPA for review and approval.

## ***For More Information***

Copies of site-related documents and an index of EPA's  
Administrative Records are available at the following locations:

Mountain View Public Library  
585 Franklin Street  
Mountain View, CA 94041  
(415) 966-6335

U.S. EPA  
Superfund Records Center  
95 Hawthorne Street, Suite 403S  
San Francisco, CA 94105  
(415) 536-2000

If you have questions or would like more information on the  
MEW Study Area, please contact:

**Angeles Herrera**  
Community Relations Coordinator  
75 Hawthorne Street (H-1-1)  
San Francisco, CA 94105  
(415) 744-2183

OR

**Elizabeth Adams**  
Remedial Project Manager  
75 Hawthorne Street (H-6-5)  
San Francisco, CA 94105  
(415) 744-2235

***EPA Superfund Toll-Free Information Line: (800) 231-3075***  
***If you call, please leave a message on the answering machine***  
***and your call will be returned as soon as possible.***

## ***Middlefield-Ellis-Whisman Site Update***

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### ***INSIDE:***

***Status of Cleanup  
Activities at MEW  
Site***

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